

Abstracts

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ing an erythropoiesis-stimulating therapy (EST). Patients were included in this analysis if they were ≥ 65 years old and received therapy between October 2005 and October 2006. Patient demographics, comorbid conditions, baseline hemoglobin, CKD status, EST dose, and frequency of administration were collected. Drug cost was based on average weekly dose and September 2006 wholesale acquisition cost (EPO \$12.17/1000 Units; DARB \$4.446/mcg). **RESULTS:** 862 patient charts were reviewed; 556 patients met eligibility criteria (EPO: 351; DARB: 205). Patient demographics, comorbid conditions, baseline hemoglobin, and CKD status were similar between groups. Weekly and extended (\geq every two weeks [\geq Q2W]) dosing patterns were seen in both groups (EPO: QW, 39%; \geq Q2W, 61%; DARB: QW, 8%; \geq Q2W, 92%). The average weekly dose over the course of the study (EPO: 10,719 units; DARB: 48 mcg) corresponded to a dose ratio of 223:1 (Units EPO: mcg DARB) and weekly costs of \$130 for EPO and \$213 for DARB. **CONCLUSION:** The doses and 39% lower drug cost in the EPO group observed in this study were similar to those published from earlier time periods. The results reported here should be of assistance to clinicians and formulary decision makers in identifying current real-world dosing and subsequent cost of treatment of these two erythropoietic agents.

CS2

OUTCOMES ASSOCIATED WITH THE USE OF THIAZOLIDINEDIONES AMONG MEDICARE BENEFICIARIES WITH TYPE II DIABETES—AN INSTRUMENTAL VARIABLE APPROACH

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OBJECTIVES: To study treatment outcomes (total cost, hospitalization, hospital stays and physician office visits) associated with thiazolidinedione (TZD) use among Medicare patients with type II diabetes. **METHODS:** Medicare Current Beneficiary Survey Cost and Use files 2000 and 2001 were used. Patient-year approach was utilized. After applying inclusion and exclusion criteria, patients' sociodemographic and clinical characteristics were characterized and compared across different treatment groups. Instrumental variable (IV) methodology was applied with TZD geographic area use rate as instrument and IV assumptions were validated. The results of IV method were compared to that of standard ordinary least square (OLS) approach. **RESULTS:** A total of 417 patients were included in the final analysis. More patients with actual TZD treatment had comorbidities >0 (69.8% vs. 56.4%, $p < 0.05$) and less were non-white/black race (1% vs 7%, $p < 0.05$) than those without. The TZD use rates were 17% and 29% for lower ($<20\%$) and higher TZD area use rate groups respectively ($p < 0.01$). Unadjusted OLS models showed that actual TZD use was associated with increased total annual cost (co-efficient = 0.38, $p < 0.01$) and risk of having more physician office visits by 81%. Adjusted OLS models showed that actual TZD use was still associated with increased total annual cost (co-efficient = 0.23, $p < 0.05$) and risk of having more physician office visits by 64% ($p < 0.05$). IV approach demonstrated that higher TZD area use rate was not associated with total annual cost, hospitalization and hospital stays ($p > 0.1$). IV assumption for physician office visits was violated as indicated by a significant Wu-Hausman test. **CONCLUSION:** Increasing average TZD area treatment rate from 17% to 29% would not lead to increased total annual cost, hospitalization and hospital stays among marginal patients in the cohort of senior diabetic patients in this study. Future research utilizing data with large sample size is suggested.

CS3

HEALTH CARE EXPENDITURE AND PATIENT SATISFACTION: COST AND QUALITY FROM HEALTH CARE CONSUMERS' PERSPECTIVE

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OBJECTIVES: Both cost and quality are major concerns in the U.S. health care system. The objective of this study is to identify the relationship between cost and quality from the health care consumers' perspective. **METHODS:** Using the 2003 Medical Expenditure Panel Survey (MEPS), a nationally representative sample of 13,980 adults (age ≥ 18) with their overall self-rating of health care quality (from 0 (worst health care possible) to 10 (best health care possible)) were included in the study. Given the heavily right-skewed distribution of the cost data, a generalized linear model with log-link function was employed to identify the relationship between health care quality rating and total health care expenditure, after controlling for individual demographic covariates, comorbidity profile (AHRQ comorbidity software), and functional and activity limitations. All statistics were adjusted using the proper sampling weight from the MEPS. **RESULTS:** The average annual health care expenditures ranged between \$4000 and \$6000 with the mean value \$4779 for all individuals rating their received health care quality from 0 to 10. Individuals with higher ratings for their health care quality did not spend more compared to individuals with lower ratings ($p = 0.72$). No non-monotonic relationship was identified either. As one expected, comorbidities and functional and activity limitations were significant predictors of the annual health care expenditure. An individual-level fixed-effect model using the 2003–2004 panel of the MEPS revealed the same relationship between health care quality rating and total health care expenditure. **CONCLUSION:** This study adds to the literature of health care quality by providing additional empirical evidence from the health care consumers' perspective at the U.S. national level. Health care quality improvement, in regards to patient satisfaction, may not require additional health care spending.

CS4

A METHODOLOGY FOR PROJECTING DISEASE PREVALENCE, TREATMENT, AND EXPENDITURES FOR THE US EMPLOYER-INSURED POPULATION

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OBJECTIVES: This study presents a methodology to estimate type II diabetes prevalence, treatment and costs among the ~178 million individuals in the U.S. with employer-sponsored insurance (ESI). **METHODS:** Estimates were made from the 2005 MarketScan® Commercial and Medicare supplemental databases, which include all health care claims for approximately 20 million employees, dependents, and retirees with ESI. The Sample Select Prevalence tool was used to identify patients with Type II diabetes (ICD-9-CM = 250.x0 or 250.x2) and drug treatment (insulin, sulfonylurea, or other oral antidiabetic drug), summarize annual health care expenditures, and calculate prevalence rates. To project these rates to the national ESI population, weights were developed using the Household Component of the Medical Expenditure Panel Survey (MEPS). To construct the weights, MEPS respondents were stratified using combinations of demographic characteristics which account for substantial differences in utilization and expenditures. **RESULTS:** In the 2005 MarketScan databases, 835,048 patients with diabetes (5320